Tuesday, May 20, 2008



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#### **Furlough Information**

New furlough information, including an <u>up-to-date</u> Q&A section, appears on the <u>furlough Web pages</u> regularly.

#### **Layoff Information**

New information on Fermilab layoffs, including an <u>up-to-date</u> Q&A section, appears on the layoff Web pages.

#### Calendar

#### Tuesday, May 20 11 a.m.

Research Techniques Seminar

- Curia II

Speaker: B. McMorran, University of Arizona Title: Matter Wave Interferometry with Poorly Collimated Beams 3:30 p.m. DIRECTOR'S COFFEE BREAK - 2nd FIr X-Over

Accelerator Physics and Technology Seminar - One

West

4 p.m.

Speakers: V. Kamerdzhiev, R. Thurman-Keup, M. Wendt, Fermilab

Title: Impressions from the Beam Instrumentation Workshop (BIW08)

Wednesday, May 21 3:30 p.m.

DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over 4 p.m.

Fermilab Colloquium - One

West

Speaker: A. Filippenko, University of California,

Berkeley

Title: Evidence from Type 1a Supernovae for an

Accelerating Universe and

Dark Energy

#### **Feature**

## Code crackers wanted!



A little more than a year ago, the Fermilab Office of Communication received a curious letter in code. It sat in our files essentially untouched as none of us are master cryptologists. However, recently we decided to ask *symmetry* readers for help in deciphering the text. (See the *symmetry breaking* story here.) We hadn't expected that readers of *slashdot.org* would also take a keen interest. Tens of thousands of people have looked at the code and made much progress toward the solution. But, we need Fermilab inside knowledge to complete the deciphering.

So far we know that the first and last sections read "FRANK SHOEMAKER WOULD CALL THIS NOISE" and "EMPLOYEE NUMBER BASSE SIXTEEN." Shoemaker has had a role in various Fermilab projects including the BooNE collaboration.

We suspect the middle section identifies the author of the letter (who is possibly reading this now). Do you have any light to shed on this? Can you help us understand the rest of the text? E-mail any information to <a href="mailto:letters@symmetrymagazine.org">letters@symmetrymagazine.org</a> or post comments on symmetry breaking.

#### Photo of the Day

### **Updates**

**Director's Corner** 

As you know, we have suffered some delays in implementing the work force restructuring plan. The plan we submitted to the Department of Energy at the end of April was based on an involuntary layoff arrived at after a thorough study to match functions, skills and



Pier Oddone

performance to the needs of the laboratory. Upon review of the plan, the Department asked that we consider implementing a targeted voluntary separation program that would precede the involuntary layoff. We are currently analyzing how we would implement such a plan while maintaining our goal to retain the staff with the skills needed to deliver on the present program and to move forward with our future programs. We do not know precisely how long this process will take. I will have an all-hands meeting later in the week to answer questions. I regret very much this extended period of uncertainty that weighs on everyone at the laboratory.

On the political front, the supplemental appropriations bill for FY2008 is currently under consideration. The House approved a bill last week that did not include any spending for science. The Senate Appropriations Committee markup included \$1.2B for science of which \$100M is for the Office of Science and \$45M for High Energy Physics. The two bills must be reconciled before submission to the President. The President has stated flatly that he will veto any bill close to the present form of either the House or Senate bills. In the meantime, there is no action so far in marking up the FY2009 President's Budget Request.

In the midst of these difficult times, the laboratory's professionalism and drive is astounding. Last week the laboratory broke three records:

- A new weekly integrated luminosity record of 58.2 inverse picobarns
- A new record antiproton hourly production rate of 26.17 mA/hr
- A new record of delivered protons-on-target

Click here for NALCAL, a weekly calendar with links to additional information.

Weather



Extended Forecast
Weather at Fermilab

**Current Security Status** 

Secon Level 3

#### Wilson Hall Cafe

#### Tuesday, May 20

- Tomato bisque
- Lemon pepper club
- Beef w/peppers
- Lasagna Florentine
- Grilled chicken Caesar wrap
- Assorted slice pizza
- Rio Grande taco salad

\*Denotes carb-restricted alternative

Wilson Hall Cafe Menu

#### **Chez Leon**

#### Wednesday, May 21 Lunch

- Cabbage & bacon calzone
- Caesar salad
- Espresso mousse

#### Thursday, May 22 Dinner CLOSED

Chez Leon Menu

Call x4598 to make your reservation.

**Archives** 

Fermilab Today

**Result of the Week** 

Safety Tip of the Week

**ILC NewsLine** 

### Bicycle commuters celebrate National Bike to Work Day



Fermilab employees and users who biked to work on National Bike to Work Day last Friday. Fermilab Bicycle Commuters organized the event. The group has about 100 regular commuters and many new members giving commuting a try because of rising gas costs. For more information, visit the Commuters' Web site.

#### In the News

# Science and Society: Talk nerdy to me

From Science, May 9, 2008

**Editor's note:** The following story mentions an editorial from *symmetry* magazine and *symmetry* editor David Harris.

A surprise hit, the new TV comedy "The Big Bang Theory" plumbs science for laughs, thanks to aid from physicist David Saltzberg and friends

**Leonard:** "At least I didn't have to invent 26 dimensions to make the math work."

Sheldon: "I didn't invent them. They're there."

Leonard: "In what universe?!"

Sheldon: "All of them. That's the point."

Physicists may be notorious for coming up with weird concepts such as alternative universes. But a popular situation comedy based on their work seems almost as fanciful. Yet last October, the American TV network CBS premiered "The Big Bang Theory," and about 9 million people now watch it each week--enough for CBS to quickly renew the show for another year. *The Washington Post's* critic Tom Shales calls it "the funniest new sitcom of the season." Apparently, it isn't just quarks that can be strange and charming.

Centering on two male physics postdocs and the blonde bombshell who moves in next door, "The Big Bang Theory" follows the sitcom formula of placing quirky, exaggerated to NuMI of 7.09 x 10<sup>18</sup>

Nothing will help us more as we develop our future than our proven ability to deliver.

#### **Accelerator Update**

#### May 16-19

- Five stores provided 65 hours and 51 minutes of luminosity
- Short TeV shutdown on Friday for necessary repairs
- TeV quench at F4 with no beam
- Linac experts resolve quadrupole problems
- Pbar LCW leak found and repaired
- Last week's integrated luminosity was 55.03 inverse picobarns

Read the Current Accelerator Update
Read the Early Bird Report
View the Tevatron Luminosity Charts

**Announcements** 

#### Have a safe day!

#### APS on site meetings today, tomorrow

All discussion and individual meetings between Fermilab employees, students and postdocs and the American Physical Society on Tuesday, May 20, or Wednesday, May 21, will take place in One East. Fermilab invited American Physical Society members to visit the laboratory to assess the work climate for women and minorities. For more information, view the meeting schedule <a href="heeting-nee

# Fermi Research Alliance, LLC (FRA) retirement plan changes

The Summary Plan Description for the FRA Retirement Plan has been updated to reflect a major change to the plan:

A terminated participant is not subject to the age and service requirement in order to be eligible for a cash withdrawal. You may elect a cash distribution from TIAA and CREF Retirement Annuities. Withdrawals from the TIAA Traditional Retirement Annuity accumulations are only possible using a Transfer Payout Annuity (TPA). If the accumulation is less than \$10,000, it would be provided in one lump sum. The Summary Plan Description for the Retirement Plan is posted on the Benefits Web site for your review.

# Women can provide feedback on work environment May 28

Calling all female staff, users and student and senior scientists. Fermilab Deputy Director

#### Info

Fermilab Today is online at: www.fnal.gov/today/

Send comments and suggestions to: today@fnal.gov

characters in situations both odd and mundane. But where the show breaks the mold is that most of those characters and situations revolve around science, highly accurate science for the most part, thanks to experimental particle physicist David Saltzberg of the University of California, Los Angeles (UCLA), who's been with the show from the initial episode. From making sure lab equipment looks suitably haphazard to supplying the equations displayed on the show, Saltzberg's presence is regularly felt on the set; he even has a director's chair with his name on it. "I can't overestimate his value to what we do," says Bill Prady, who along with Chuck Lorre created the show.

#### Read more

In the News

# At 10, dark energy "most profound problem" in physics

From *National Geographic News*, May 16, 2008

What goes up must come down. Few on Earth would argue with the fundamental law of gravity.

But ten years ago this month the Astronomical Journal accepted a paper for publication that revealed there is a dark side of the force.

For decades physicists were convinced that gravity should be causing the expansion rate of the universe to slow.

"When I throw my keys up in the air, the gravity of the Earth makes them slow down and return to me," said Mario Livio, a theoretical physicist at the Space Telescope Science Institute (STScI) in Baltimore, Maryland.

But the study, along with an independent work released later the same year, showed that the expansion rate is actually speeding up.

Read more

Young-Kee Kim would like to hear about your work environment at Fermilab. Please join her for a lunchtime meeting from noon-1 p.m. on May 28. The meetings will take place in the small dining room in the southwest corner of the atrium in Wilson Hall. Please bring your lunch. To arrange a private meeting with Young-Kee Kim, please contact Marilyn Smith via e-mail.

#### New computer programming course

"Function Objects: Using Generalized Functions in Modern C++," the final course in the current series of "Selected Topics in Computer Programming," will take place Thursday, May 22. Aimed at programmers with C++ experience, it will deal in depth with generalized callable entities in modern C++ programs. Attendees will learn techniques of currying and other forms of parameter binding, and will be prepared for related new techniques that will become available in the next C++ standard. Participants of the free course will receive TRAIN credit. Register here.

#### **Additional Activities**

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